

Amendments to the Claims

1. (Currently Amended) A ~~G~~greenhouse ~~(1)~~ comprising a structure ~~(2)~~ delimiting a growing environment~~(3)~~, and an air humidifier~~(10)~~, the greenhouse being characterized in that the ~~said~~ humidifier ~~(10)~~ comprises at least one exchange element ~~(15)~~ having a semi-permeable membrane~~(16)~~, which allows water vapour to pass between opposite sides ~~(17, 18)~~ of the membrane if there is a vapour pressure gradient between the ~~said~~ sides, and in that the greenhouse also comprises first and second supply means ~~(11, 12)~~ for bringing a flow of water ~~(13)~~ and a flow of air ~~(14)~~ respectively into contact with the ~~said~~ opposite sides of the membrane.

2. (Currently Amended) The ~~G~~greenhouse according to Claim 1, characterized in that the ~~said~~ first supply means ~~(11)~~ comprises a hydraulic circuit ~~(25)~~ for bringing the ~~said~~ flow of water ~~(13)~~ into contact with a first side ~~(17)~~ of the membrane ~~(16)~~.

3. (Currently Amended) The ~~G~~greenhouse according to Claim 1 ~~or 2~~, characterized in that the ~~said~~ flow of water ~~(13)~~ is a flow of sea water.

4. (Currently Amended) The ~~G~~greenhouse according to ~~one of~~ Claims 1 ~~to 3~~, characterized in that the ~~said~~ second supply means ~~(12)~~ comprise forced ventilation means ~~(29)~~ for bringing the ~~said~~ flow of air ~~(14)~~ into contact with a second side ~~(18)~~ of the membrane ~~(16)~~ and introducing the humidified air ~~(30)~~ leaving the ~~said~~ humidifier ~~(10)~~ into the greenhouse.

5. (Currently Amended) The ~~G~~greenhouse according to Claim 1 ~~one of the preceding claims~~, characterized in that the ~~said~~ humidifier ~~(10)~~ comprises a plurality of

exchange elements (15), each exchange element (15) being delimited by a portion of semi-permeable membrane (16) interposed between the ~~said~~ flow of water (13), circulating within the exchange element (15), and the ~~said~~ flow of air (14), which is in contact with the exterior of the exchange element (15).

6. (Currently Amended) The Ggreenhouse according to Claim 5, characterized in that the ~~said~~ semi-permeable membrane (16) is shaped in such a way as to form a plurality of compartments (21) constituting corresponding exchange elements (15), the compartments (21) having the ~~said~~ flow of water (13) running within them and having the ~~said~~ flow of air (14) in contact with their exteriors.

7. (Currently Amended) The Ggreenhouse according to Claim 1 ~~one of the preceding claims~~, characterized in that it comprises a condenser (35) for condensing the water vapour present in the humidified air (30) introduced into the greenhouse and for obtaining condensate (36).

8. (Currently Amended) The Ggreenhouse according to Claim 7, characterized in that the ~~said~~ condenser (35) and the ~~said~~ humidifier (10) are positioned at opposite ends of the greenhouse, forced ventilation means (29, 52) being provided to keep the air in forced circulation between the ~~said~~ ends of the greenhouse.

9. (Currently Amended) The Ggreenhouse according to Claim 7 ~~or 8~~, characterized in that the ~~said~~ condenser (35) is connected to irrigation means (55) for distributing the condensate (36) to the plants placed in the greenhouse.

10. (Currently Amended) The Greenhouse according to ~~one of Claims 7 to 9~~, characterized in that it comprises recirculation means (~~53~~) for recirculating the air leaving the condenser (~~35~~) and supplying it to the humidifier (~~10~~).

11. (Currently Amended) The Greenhouse according to ~~one of Claims 7 to 10~~, characterized in that the condenser (~~35~~) comprises at least one heat exchange element (~~37~~) between the humidified air (~~30~~) taken from the greenhouse and a. cooling fluid (~~38~~) having a temperature lower than the temperature of the humidified air (~~30~~) within the greenhouse.

12. (Currently Amended) The Greenhouse according to Claim 11, characterized in that it comprises a branch circuit (~~41~~) for taking the ~~said~~ cooling fluid (~~38~~) from the ~~said~~ flow of water (~~13~~) up-line from the ~~said~~ humidifier (~~10~~).

13. (Currently Amended) A Method of cultivation under glass, characterized in that it comprises the steps of:

[-] providing a greenhouse (~~1~~) with an air humidifier (~~10~~) comprising at least one exchange element (~~15~~) having a semi-permeable membrane (~~16~~) which allows water vapour to pass between opposite sides (~~17, 18~~) of the membrane if there is a vapour pressure gradient between the ~~said~~ sides;

[-] humidifying a flow of air (~~14~~) by the exchange of water vapour between a flow of water (~~13~~) and the ~~said~~ flow of air, the flow of air and the flow of water being brought into contact with opposite sides (~~17~~) and (~~18~~) respectively of the membrane (~~16~~);

[-] introducing the humidified air (~~30~~) leaving the humidifier (~~1~~) into the greenhouse.

14. (Currently Amended) The Mmethod according to Claim 13, further comprising ~~characterized in that it comprises~~ a step of causing a forced circulation of the air in the greenhouse.

15. (Currently Amended) The Mmethod according to Claim 13 ~~or 14~~, characterized in that the ~~saïd~~ flow of air (14) is supplied to the humidifier (10) with a vapour pressure lower than the vapour pressure of the ~~saïd~~ flow of water (13).

16. (Currently Amended) The Mmethod according to ~~one of Claims 13 to 15~~, characterized in that the ~~saïd~~ flow of water (13) is supplied to the ~~saïd~~ humidifier (10) at a temperature lower than the temperature of the ~~saïd~~ flow of air (14).

17. (Currently Amended) The Mmethod according to ~~one of Claims 13 to 16~~, characterized in that the ~~saïd~~ flow of water (13) is a flow of sea water.

18. (Currently Amended) The Mmethod according to ~~one of Claims 13 to 17~~, characterized in that it comprises a condensation step, in which the water vapour present in the humidified air (30) introduced into the greenhouse is condensed in a condenser (35) to produce condensate (36).

19. (Currently Amended) The Mmethod according to Claim 18, characterized in that the ~~saïd~~ condensation step comprises a step of heat exchange between the humidified air (30) taken from the greenhouse and a cooling fluid (38) having a temperature lower than the temperature of the ~~saïd~~ humidified air.

20. (Currently Amended) The Method according to Claim 19, characterized in that the ~~said~~ cooling fluid (38) is taken from the ~~said~~ flow of water (13) up-line from the ~~said~~ humidifier (10).

21. (Currently Amended) The Method according to ~~one of~~ Claims 18 ~~to~~ 20, characterized in that the ~~said~~ humidification step and the ~~said~~ condensation step are carried out in an essentially continuous and simultaneous way at opposite ends of the greenhouse.

22. (Currently Amended) The Method according to ~~one of~~ Claims 18 ~~to~~ 21, characterized in that it comprises a step of irrigating the plants placed in the greenhouse with the condensate.

23. (Currently Amended) The Method according to ~~one of~~ Claims 18 ~~to~~ 22, characterized in that it comprises a recirculation step, in which the air leaving the condenser (35) is collected and supplied to the humidifier (10).

24. (Currently Amended) The Method according to ~~one of~~ Claims 18 ~~to~~ 23, characterized in that the air leaving the condenser (35) is sent to cool a roof (6) of the greenhouse.